

GINZBURG

"APPROVED FOR RELEASE: Thursday, September 26, 2002  
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CIA-RDP86-00513R000515130006-0  
CIA-RDP86-00513R000515130006-0"

SOV/112-58-1-289

Translation from: Referativnyy zhurnal, Elektrotehnika, 1958, Nr 1,  
pp 42-43 (USSR)

AUTHOR: Ginzburg, Ts. G.

TITLE: Laboratory Tests of Watertightness and Strength of Block Joints in  
Concrete Structures (Laboratornyye ispytaniya vodonepronitsayemosti i  
prochnosti blochnykh shvov betonnykh sooruzheniy)

PERIODICAL: Izv. Vses. n. -i. in-ta gidrotekhn., 1956, Nr 56, pp 144-155

ABSTRACT: In a laboratory at one of the Soviet Hydroelectric developments, watertightness of various block-joint types was investigated. Averaged test results of a simple joint, a hacked joint, and a hacked joint with scrubbed mortar revealed that the latter had the minimum seepage; the hacked joint had the maximum seepage. Apparently, water accumulating in the hacked-joint notches dilutes the mortar of the adjoining surfaces and lowers seepage resistance of the joint. Rubbing the mortar in with steel brushes eliminates this difficulty. Tests also revealed an abrupt reduction of seepage in the joints after 120 days — explained by self-sealing of the concrete joint under the

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Laboratory Tests of Watertightness and Strength of Block Joints in Concrete . . . .

influence of an intensive hydration of the cement. Vibrating the concrete insures a higher watertightness than bayonet-type compacting. Averaged test results of joints with oil-tar and cement keys, with roughened surface, and with corrosion-protected steel sheets revealed that the oil-tar key joints had no seepage after 28 days. The cement key showed a seepage of 62.3% compared to that through the simple joint. Rough-surface joints and steel-sheet joints showed no filgration after 200 days. Vibrated concrete showed a filtration considerably lower than the bayonet-compacted joint. Strength tests of concrete joints were made on the 28th day and revealed the most inferior results with the hacked joint with vibration (39.6% with respect to solid control samples) and the best results with the hacked joint with broomed mortar (84.5% with respect to the control samples). Laboratory analysis of joints should be supplemented by studying watertightness under actual operating conditions. Intensive hydration of cement is very important for reducing joint seepage; high humidity and uniform temperature are conducive to curing. When constructions are being flooded, better joint seals will result if the temperatures

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Laboratory Tests of Watertightness and Strength of Block Joints in Concrete . . . .  
of both the concrete and water are nearly the same. Tests have shown that  
joints with greater mechanical strength have better watertightness.

V. G. P.

AVAILABLE: Library of Congress

1. Structures--Properties    2. Joints--Test methods    3. Concrete  
--Performance

AUTHOR: Ginzburg, Ts.G., Cand. Tech. Sciences.

179

TITLE: The permissible mica content in sand used for concrete.  
(O dopustimom soderzhanii slyudy v peske, primenyayemom  
v betone).

PERIODICAL: "Beton i Zhelezobeton" (Concrete and Reinforced Concrete),  
1957, No.3, pp.107-108 (U.S.S.R.)

ABSTRACT: In the Laboratory of the All-Soviet Scientific and  
Research Institute for Hydrotechnik imeni B.E.Vedeneyev  
(Vsesoyuznyi Nauchno-issledovatel'skii Institut  
Gidrotekhniki imeni B.E. Vedeneyeva (VNIIG)) the author  
investigated the influence of mica in sand and the hard-  
ness and frost-resistance of cement mortar and concrete  
and also on concrete which contains a small quantity  
of sulphite waste liquor (SSB). The tested cement was  
of Mark 400, manufactured by the Leningrad factory  
imeni Vorovskogo and had the following composition:  
 $C_3S = 50.4\%$ ,  $C_2S = 20.7\%$ ,  $C_4AF = 14\%$  and  $C_3A = 9.4\%$ .  
The relevant standards are: GOST 4797 - 49 (Hydro-  
technical Concrete). Both standard allow for 0.05%  
of mica in sand used for concrete. GOST 4797 - 49 was  
revised by GOSSTROI SSSR and the new permissible mica  
content is increased up to 2-3%. Results of the  
investigations show that up to 4% mica content does  
not affect the strength of the cement mortar appreciably.  
Tests were also carried out by substituting sand by mica

The permissible mica content in sand used for concrete.<sup>179</sup>  
(Cont.)

which showed that the strength of the mortar was only 15% of the strength of pure sand mortar. The influence of the mica content in sand on cement mortar with regard to the frost-resistance of the latter was tested by submerging the test cubes 3 - 5 times in a saturated solution of sodium sulphate with subsequent drying at 105°C. Results proved that up to 3% mica does not impair the frost resistance. For concrete situated under water sands containing up to 5% of biotite or up to 3% muscovite can be used. Concretes drying on air can contain sand with 3% biotite or 2% muscovite.

PERIODICAL: "Beton i Zhelezobeton" (Concrete and Reinforced Concrete), 179  
1957, No.3, pp.108-109 (U.S.S.R.)

The use of cinder dust for concrete.  
(Ispol'zovaniye zol'noi pyli dlya prigotovleniya betona).  
(Abstracted from "Concrete Building and Concrete  
Products", 1956, No.6.)

~~SECRET~~ ~~TS O~~ ~~maulast, tekhnicheskikh nauk.~~

The quality of concrete and its control in building hydraulic  
structures. Gidr. stroi. 26 no. 4:11-13 Ap '57. (MLRA 10:6)  
(Hydraulic engineering) (Concrete construction)

STOL'NIKOV, V.V., doktor tekhn.nauk, prof.; GINZBURG, TS.G., kand.  
tekhn.nauk.

Using air entraining additives and small doses of calcium  
chloride in winter concrete work. Gidr.stroi. 26 no.10:33-37  
0 '57. (MIRA 10:10)  
(Concrete construction--Cold weather conditions)

STOL'NIKOV, V.V., prof., doktor tekhn.nauk; GINZBURG, TS.G, starshiy  
nauchnyy sotrudnik, kand.tekhn.nauk

Winter concreting with the use of air-entraining agents and  
small doses of calcium chloride. Izv. VNIIG 60:28-38 '58.  
(MIRA 13:6)

(Frost resistant concrete)

**GINZBURG, TS.G.; LITVINOVA, R.Ye.**

**Strength of cement and concrete solutions during axial extension and compression. Izv. VNIIG 60:165-171 '58.**

**(MIRA 13:6)**

**(Concrete--Testing)**

GINZBURG, Tsezar' Grigor'yevich; CHISTYAKOV, Aleksandr Mikhaylovich;  
GIRSHKAN, I.A., red.; FEL'DSHTEYN, B.S., tekhn.red.

[Designing wear resisting anti-cavitation concretes] Proektiro-  
vanie iznoscustochivogo protivokavitatsionnogo betona. Moskva,  
Gos.energ.izd-vo, 1959. 34 p. (MIRA 13:4)  
(Concrete) (Hydraulic structures)

14(10)

SOV/98-59-2-7/22

AUTHORS: ~~Ginzburg, Ts.G.~~ and Litvinova, R.Ye.,  
Candidates of Technical Sciences

TITLE: The Variation of Axial Tensile and Com-  
pressive Strength of Hydrotechnical Con-  
crete Over a Period of Time (Izmeneniye  
prochnosti gidrotekhnicheskogo betona na  
osevoye rastyazheniye i szhatiye vo  
vremeni)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959,  
Nr 2, p 30-33 (USSR)

ABSTRACT: This article describes the results, ob-  
tained in the laboratoriya betona (the  
Beton Laboratory) of VNIIG, of a study of  
the dependence of tensile and compressive  
strength of concrete and concrete solution  
on the water-cement ratio and on hardening  
periods. It was found that the relation

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SC-733-59-2-7/22

The Variation of Axial Tensile and Compressive Strength of Hydrotechnical Concrete Over a Period of Time

between axial tensile strength and compressive strength is not always the same for a given concrete, but decreases with the gradual hardening of concrete. The axial strength of new concrete is less than the strength of its solution. The axial tensile strength of one year old concrete is greater than that of its solution, because at that time the cohesion of the coarse filler with the liquid component in a humid surrounding attains a considerable magnitude at the expense of swelling and hydration of cement stone. The authors recommend the elaboration

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14(10)

SOV/98-59-2-7/22

The Variation of Axial Tensile and Compressive Strength of Hydrotechnical Concrete Over a Period of Time

of a unique method of testing axial tensile strength of concrete. There are 3 tables and 4 graphs.

ASSOCIATION: (VNIIG)

Card 3/3

STOL'NIKOV, V.V., prof., doktor tekhn.nauk; GINZBURG, TS.G., starshiy  
nauchnyy sotrudnik, kand.tekhn.nauk; LITVINOVA, R.Ye., starshiy  
nauchnyy sotrudnik, kand.khim.nauk

Stiff concrete mix for the interior areas of hydraulic structures.  
Izv.VNIIG 63:73-83 '60. (MIRA 14:5)  
(Concrete) (Hydraulic structures)

GINZBURG, TS.G.; KEND, V.V.; LITVINOVA, R.Ye.

Some problems connected with heat emission during hardening cements.  
TSment 26 no.4:11-15 J1-Ag '60. (MIRA 13:11)

(Heat--Radiation and adsorption)  
(Cement)

GINZBURG, TS.G.; KOTS, L.I.

Heat release during hardening of cement mortars and concretes.  
Sber. trud. LIIZHT no.192:117-136 '62. (MIRA 16:9)

GINZBURG, T.S.G., kand.tekhn.nauk; GERSHANOVICH, G.L., inzh.

Selecting the composition of the concrete for the dam of the  
Bratsk Hydroelectric Power Station. Gidr.stroi. 32 no.4:8-11  
Ap '62. (MIRA 15:4)  
(Bratsk Hydroelectric Power Station--Dams) (Concrete)

GINZBURG, TS.G., kand.tekhn.nauk; LITVINOVA, R.Ye., kand.khimicheskikh nauk

The possibility of extending the deadlines for placing separate  
layers of concrete mix. Gidr.stroi. 32 no.7:25-27 JI '62.

(MIRA 15:7)

(Concrete construction)

GINZBURG, T. "APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130006-0  
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"Night-time Drops in Temperature and Forecast of Radiational Fog Under Various Climatic Conditions in the USSR", Works of the Sci-Res Institution of the Main Administration of the Hydrometeorological Service USSR, Series 1, No 28, 1946 (87-92).  
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

GINSBURG, T. S.

USSR/Medicine - Tuberculosis  
Animals, Experimentation

Sep/Oct 49

"Is It Practical to Utilize White Mice for Determining the Virulence of Tubercle Bacilli Strains?" R. O. Drabkina, T. S. Ginzburg, Immunol Lab, Kiev Inst of Tuberculosis, 2 pp

"Prob Tuber" No 5

Virulence of 21 strains of tubercle bacilli isolated from persons with various types of tuberculosis of the lungs, bones, and joints was tested on white mice and results compared with results obtained from guinea pigs to ascertain whether virulence in one sensitive animal corresponded to the degree of virulence in another. Found that fresh strains from human beings were virulent in white mice, but the degree of virulence in white mice did not always correspond to that in guinea pigs. Observed no relationship between nature and course of human processes and degree of virulence in white mice. Dir, Kiev Inst of Tuberculosis: A. S. Mamolat. Sci Dir, Immunol Lab: Prof N. S. Morozovskiy.

PA 152770

GINZBURG, T. S.

USSR/Medicine - Bacteriology

Jul/Aug 52

"Accelerated Method for Testing the Resistance of Koch Bacilli to Streptomycin," T. S. Ginzburg, Immunobiol Lab, Ukrainian Sci Res Tuberculosis Inst, Kiev

"Prob Tuber" No 4, pp 64-66

Describes laboratory procedure of a modified version of the Price test for determination of the effects of streptomycin on certain bacterial forms of tuberculosis. Advocated advantages of this test, claimed by Soviet scientists are: time required

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for the test reduced from 6 wks to 10 or 14 days, test made in one stage, simplified prepn of a culture medium.

222513

**GINZBURG, T.S.**

**Significance of streptomycin resistance of *Mycobacterium tuberculosis*  
for the efficacy of therapy. Probl.tub. no.4:77 J1-Ag '53.**

**(MIRA 6:11)**

**1. Iz immunobiologicheskoy laboratorii (zaveduyushchiy - professor R.O.  
Drabkina) Ukrainskogo nauchno-issledovatel'skogo tuberkuleznogo insti-  
tuta (direktor A.S.Mamolat).                    (Tuberculosis) (Streptomycin)**

GINZBURG, T. S.

"Materials of a Study of Streptomycin-Resistant Strains of Mycobacterium Tuberculosis."  
Kazan' State Medical Inst., Kiev, 1955. (Dissertation for the Degree of Candidate  
in Medical Sciences)

SO: Knizhnaya Letopis', No. 22, 1955, pp 93-105

GINZBURG, T.S.

USSR / Microbiology. Microbes Pathogenic to Humans  
and Animals.

F-3

Abs Jour : Ref Zhur - Biol., No 2, 1958, No 5268

Author : Ginzburg, T.S.

Inst : Not given

Title : Phthivazide-Resistant Strains of Mycobacterium Tuberculosis  
and Their Biological Properties.

Orig Pub : Probl. tuberkuleza, 1957, No 1, 81-86

Abstract : 17 isolated strains of tuberculosis bacilli (TB) were sensitive to 0.1 - 0.2  $\gamma$ /ml of phtivazide (P). After 3 passages on media with antibiotics, resistance of TB to P was increased 20 times, to streptomycin 4 times. P-resistant strains demonstrated resistance also to other derivatives of isoniazide. Development of TB resistance in patients treated with preparation P depended on the length of treatment. In treatment for 1-2 months, P resistance was

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USSR /Microbiology. Microbes Pathogenic to Humans  
and Animals.

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Abs Jour : Ref Zhur - Biol., No 2, 1958, No 5268

Author : Ginsburg, T.S.

found in 4 of 22 strains; in treatment for  $2\frac{1}{2}$ -3 months, in 20 out of 25 strains. Resistance increased no more than 200-500 times. Upon storing 6 resistant strains under laboratory conditions, the resistance diminished in 2 strains, was lost in 2, and was preserved in 2. In 5-12 months after the end of the treatment P-resistant strains were isolated from the patients. Of 7 highly resistant strains only one possessed average virulence for guinea pigs; one was slightly virulent; in the rest the virulence was diminished to various degrees. Virulence to mice was diminished to a lesser degree than to guinea pigs. Treatment by P did not prevent the development of infection in mice infected by P-resistant tuberculosis. The appearance of P-resistance in patients lowered the effectiveness of further use of P.

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20-5-27/60

**AUTHOR** BOLDYREV, B.S., GINZBURG, T.S., DRABKINA, R.O.  
**TITLE** On the Antituberculous Activity of Thiosulfonic Acid Ethers.  
(O protivotuberkuleznoy aktivnosti efirov tiosal'fokislot-Russian)  
**PERIODICAL** Doklady Akademii Nauk SSSR, 1957, Vol 114, Nr 5, pp 1014-1016 (U.S.S.R.)  
**ABSTRACT** This activity of I thiosulfonic acid ethers has hitherto not been investigated at all. Only in one instance did the bacteriostatic action of II ethanethiosulfonic acid on Mycobacterium tuberculosis become known. In view of the fact that the structure of the IV-compounds is expressed by their anti-tuberculous properties, the authors hoped to detect substances with such properties among the ethers of I thiosulfonic acids. Alkyl ethers of alkane thiosulfonic acids. Closed to the allicin-analogues according to their structure are the alkyl-ethers of V alkane thiosulfonic acids, which were already earlier synthesized by an author. These substances have a broad antibacterial action spectrum and exhibit in vitro a bacteriostatic influence on gram-positive, gram-negative and acid-resistant bacteria, on various fungi, protozoa, etc. Tests in vitro. All of the ethers tested showed a tuberculostatic effect. All ethers of methane thiosulfonic acid and propane thiosulfonic acid-2 fully retain their activity even in the presence of serum, in contrast to the alkylethers V of the other alkane thiosulfonic acids. Tests in vivo. The preparations found to be most active in vitro were tested on white mice for their toxicity and their deadly action determined in various cases. The least toxic substances among them were tested for clari-

20-5-27/60

# On the Antituberculous Activity of Thiosulfonic Acid Ethers.

fication of their therapeutical effect on experimental tuberculosis. All ethers examined, also those with a maximum activity in vitro, were ineffective on that occasion. In some instances this may be explained by their ability to inactivate themselves abruptly in animal organisms, in other instances it may be explained by their elevated toxicity which prohibits its application in large doses. Alkyl ethers of benzene thiosulfonic acid and their derivatives. The VI ethers have the same effect on the same types of bacteria as those mentioned above. Their activity, however, is weaker than that of the V-compounds. Tests in vitro. The introduction of substituents in a p-position, also little changes the activity; chlorine, and the methoxy-group slightly raise it. The nitro group has no noticeable effect, the acetylamino group slightly reduces it; the deazylation of the alkyl ethers of acetylthiosulfonic acid increases the activity of these compounds. The mutual position of the substituents in the benzene nucleus apparently is insignificant for the tubercle-killing properties. Here, too, an inactivation by serum takes place. However, no established connection between structure and inactivation could be found. Tests in vivo. Three VI alkyl ethers with an activity of ca. 1 mg, which cannot be inactivated by serum, were tested. No Therapeutical effect was noticed. Thus the tested substances have a tubercle-static activity in vivo, but are ineffective in the curing

20-5-27/60

On the Antituberculous Activity of Thiosulfonic Acid  
Ethers.

of tuberculosis on living animals.  
(4 Slavic references)

ASSOCIATION L'vov Polytechnical Institute and Ukrainian Scientific Research  
Institute for Tuberculosis.  
PRESENTED BY NAZAROV I.N., Member of the Academy.  
SUBMITTED 25.2.1957  
AVAILABLE Library of Congress.  
Card 3/3

**DRABKINA, R.O., prof.; GINZBURG, T.S., kand.med.nauk**

**Biological peculiarities of BCG resistant to phthivacid. Pat.,  
klin.i terap.tub. no.8:12-15 '58. (NIRA 13:7)**

**1. Iz mikrobiologicheskoy laboratorii (rukovoditel' - prof.  
R.O. Drabkina) Ukrainskogo nauchno-issledovatel'skogo insti-  
tuta tuberkuleza im. akad. F.G. Yanovskogo.  
(BCG) (ISONICOTINIC ACID)**

GINZBURG, T.S.. kand.med.nauk

Preservation of a weakened virulence by *Mycobacterium tuberculosis*  
resistant to phthivacid and its fate in the body. Pat., klin. i  
terap.tub. no.8:75-78 '58. (MIRA 13:7)

1. In mikrobiologicheskoy laboratorii (rukovoditel' - prof. R.O.  
Drabkina) Ukrainskogo nauchno-issledovatel'skogo instituta tuber-  
kuleza im. akad. F.G. Yanovskogo.

(MYCOBACTERIUM TUBERCULOSIS) (ISONICOTINIC ACID)

**VIL'TMAN, R.P.; RYKLIS, S.G.; GINEBURG, T.S.**

**Antituberculous action of derivatives of benzthiazole. Pat.,  
klin.i terap.tub. no.8;88-91 '58. (MIRA 13:7)**

**1. Iz Ukrainського nauchno-issledovatel'skogo instituta tuberku-  
leza im. akad. F.O. Yanovskogo.**

**(THIAZOLE)**

**(URNA)**

GINZBURG, T.S., kand.med.nauk

Catalase activity and virulence of *Mycobacterium tuberculosis*  
resistant to phthivazid. Pat.klin.i terap.tub. no.8:92-95  
'58. (MIRA 13:7)

1. In mikrobiologicheskoy laboratorii (rukovoditel' - prof.  
R.O. Drabkina) Ukrainskogo nauchno-issledovatel'skogo insti-  
tuta tuberkuleza im. akad. F.G. Yanovskogo.

(CATALASE) (MYCOBACTERIUM TUBERCULOSIS)

SOV/16-59-9-2/47

17(2)

AUTHORS: Drabkina, R.O., and Ginzburg, T.S.

TITLE: The Biological Features of Phthivazid-Resistant BCG Bacteria

PERIODICAL: Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1959, Nr 9, pp 8-13 (USSR)

ABSTRACT: Much has recently been written on the change in the biological properties of phthivazid-resistant BCG bacteria. (A.A. Klebanova, A.I. Torgunova, Smolyanskaya, etc). The authors undertook a study of the properties of the phthivazid-resistant variant of BCG bacteria, compared with those of the original sensitive strain. They studied the ability of BCG phthivazid-resistant bacteria to spread in the body of the animals and their ability to provoke allergy and immunity, also the activity of the tuberculins which they liberate. The tests showed that the immunity induced in mice by phthivazid-resistant strains was very weak and less marked than the immunity produced by normal BCG bacteria. The phthivazid-resistant strains lost their catalase activity, i.e. their ability to decompose hydrogen peroxide, the toxic product of aerobic dehydration. Their ability to adapt and spread in the body was reduced and consequently their immunizing and allergizing power also decreased.

Card 1/ 2

# The Biological Features of Phthivazid-Resistant BCG Bacteria

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At the same time the phthivazid-resistant strains retained their power to liberate tuberculins when cultivated in vitro. These tuberculins were no less active than those liberated by the normal bacteria. The investigations showed that the phthivazid-resistant strain loses its immunogenic properties and therefore cannot be used for immunization purposes. Chernushenko has demonstrated that combined use of prophylactic chemotherapy and vaccination with normal BCG bacteria is possible and effective, provided that phthivazid is used not immediately but some time (no less than 30 days) after vaccination, i.e. the period needed for the vaccinal bacteria to multiply in the body. There are 4 tables and 11 references, 5 of which are Soviet and 6 English.

ASSOCIATION: Ukrainskiy institut tuberkuleza (Ukrainian Institute of Tuberculosis)  
SUBMITTED: November 11, 1958

**KLUBANOV, M.A.; GINZBURG, T.S.**

Clinical significance of phthivazid-resistance in attenuated tubercle bacilli. Probl.tub. 37 no.6:22-27 '59. (MIRA 13:2)

1. Iz Ukrainського nauchno-issledovatel'skogo instituta tuberkuleza (dir. A.S. Mamolat) (Kiyev).  
(MYCOBACTERIUM TUBERCULOSIS pharmacol.)  
(ISONIAZID, rel. cpds.)

Drug resistance of Mycobacterium tuberculosis and accompanying  
microflora in patients with osteoarticular tuberculosis. Lab. delo  
7 no.3:34-37 Mr '61.  
(MIRA 14:3)

1. Mikrobiologicheskaya laboratoriya (zav. - prof. R.O.Drabkina)  
Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza,  
Kiyev.

(MYCOBACTERIUM TUBERCULOSIS) (BONES—TUBERCULOSIS)  
(BACTERIA, EFFECT OF DRUGS ON)

GINZBURG, V.; MIL'MAN, A. ;

Factors involved in the classification of work time expended  
in industrial transportation. Sots.trud no.3:88-94 Mr '58.  
(MIRA 13:3)

(Transportation--Production standards)  
(Job analysis)

Card 1/2

An orbital laboratory. Some other...

9/269/63/000/003/007/036  
A001/A101

with atomic numbers 15 and higher. It is assumed that the nuclei recorded are of solar origin, which is confirmed by the analysis of data on other manifestations of solar activity during the same time. Earth's radiation belts were discovered. The lower part of the radiation belts attains an altitude of ~200 km, although the belts are clearly pronounced only at higher altitudes (600 - 1,000 km and higher). It was discovered that radiation belts have "spurs", the lower of which are related to magnetic anomalies. The tasks of further investigations are studying Earth's radiation belts, the proton component of galactic and solar cosmic rays, "high-latitude cut-off" in the spectrum of cosmic rays, and electronic component of galactic and solar cosmic rays.

T. Kasimenko

[Abstracter's note: Complete translation]

GINZBURG, V.

The radio sky. Tekhnol. 30 no.10:12-14 '62. (MIRA 15:12)

1. Chlen-korrespondent AN SSSR.  
(Radio waves)

GINZBURG, V.; KURNOSOVA, L., kand. fiziko-matematicheskikh nauk;  
RAZORENOV, L., kand. fiziko-matematicheskikh nauk; PRADKIN, M.,  
kand. fiziko-matematicheskikh nauk

Laboratories in orbits. Av. i kosm. 45 no.6:13-22 '62.  
(MIRA 15:10)

1. Chlen-korrespondent AN SSSR (for Ginsburg).

(Outer space--Exploration)

GINZBURG V.A.

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LEONTOVICH, M.A., akademik, redaktor; GREKOVA, M.T., professor, redaktor;  
AYZERMAN, M.A., doktor tekhnicheskikh nauk, redaktor; GINZBURG, V.A.,  
professor, redaktor; GORELIK, G.S., professor, redaktor; ~~LEONTOVICH~~  
ANDRONOVA, Ye.A., dotsent, redaktor; ZHELETSOV, N.A., dotsent, redak-  
tor; PETROV, V.V., kandidat tekhnicheskikh nauk, redaktor; NIKOLAYEV,  
Ya.N., dotsent, redaktor; AGITOVA, N.A., redaktor; BRYLEYEV, A.M.,  
redaktor; ALEKSEYEV, T.V., tekhnicheskii redaktor.

[Dedicated to the memory of Aleksandr Aleksandrovich Andronov] Pamiati  
Aleksandra Aleksandrovicha Andronova. Moskva, 1955. 718 p.

(MIRA 8:4)

1. Akademiya nauk SSSR.

(Mathematical physics)(Automatic control)(Astrophysics)

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CIA-RDP86-00513R000515130006-0  
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SHIROKOV, K.P.; GINZBURG, V.A.

Effect of magnetic fields on manganin resistors. Trudy VNIIM no.28;  
102-106 '56. (MIRA 10:12)  
(Magnetic fields) (Electric resistance)

87529

S/079/60/030/012/013/027  
B001/B064

53630

AUTHORS: Ginsburg, V. A. and Yakubovich, A. Ya  
TITLE: On the Problem of the Reaction Between Aldehydes and  
Trialkyl Phosphites  
PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 12,  
pp. 3979-3987

TEXT: It was published in Soviet papers (Refs. 1-4) that in the reaction between aldehydes and trialkyl phosphites the aliphatic and aromatic aldehydes form esters of  $\alpha$ -alkoxyalkylphosphinic acids (Ref. 1). whereas  $\alpha$ ,  $\beta$ -unsaturated aldehydes form addition products in the 1,4-position (Refs. 2, 3). The esters of phenylphosphinic acid react analogously (Ref. 4):  $RCH=O + (C_2H_5O)_3P \longrightarrow (C_2H_5O)_2P(O)CH(R)OC_2H_5$  (1)  
 $CH_2=CH-CH=O + (C_2H_5O)_3P \longrightarrow (C_2H_5O)_2P(O)CH_2-CH=CHOC_2H_5$  (2). The structure of the compounds obtained was mainly determined by phosphorus analysis and from the values of molar refraction except for the product which is obtained by reacting trialkyl phosphite with acrolein and from

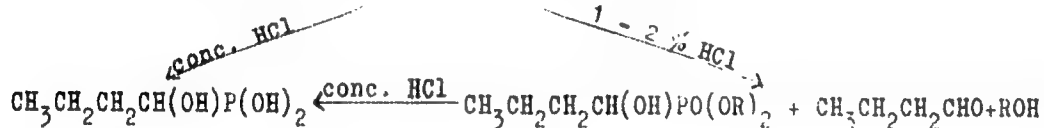
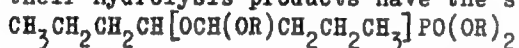
Card 1/3

87529

On the Problem of the Reaction Between  
Aldehydes and Trialkyl Phosphites

S/079/60/030/012/013/027  
B001/B064

which phosphone propionaldehyde is obtained by hydrolysis. The authors regard these data as insufficient. Proceeding from triethyl-, tripropyl, tributylphosphite, and some saturated and unsaturated aliphatic and aromatic aldehydes the authors obtained a number of phosphorus compounds (Table). The elementary analysis and the molecular weights of the products obtained show that only the reaction products with aromatic aldehydes (except for salicylic aldehyde) correspond to the structure shown in scheme (1). The composition of the reaction product obtained from phosphite and acrolein corresponds to scheme (2). The composition of the reaction products of trialkyl phosphites with aliphatic aldehydes essentially differs from those calculated according to scheme (1). The chemical, hydrolytical, and spectroscopic studies of the products No. 2, 3, 4 showed that their hydrolysis products have the structure of scheme (3).



Card 2/3

87530

S/079/60/030/012/014/027

B001/B064

53630

AUTHORS: Ginsburg, V. A. and Yakubovich, A. Ya.

TITLE: Addition of Trialkyl Phosphites to Acrylic Systems

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 12, pp.3987-3992

TEXT: In continuation of earlier papers (Refs.1-4) the authors found that the most simple ketones, such as acetone, do not react with triethyl phosphite under the conditions studied. A violent reaction, however, takes place between triethyl phosphite and diphenyl ketone already in the cold. This is not the case between triethyl phosphite and diethyl oxalate containing two conjugate C=O bonds even at temperatures up to 170°C. The acrylates and methacrylates served as initial substances when studying the reaction of the trialkyl phosphites with compounds containing the carbonyl group in a carboxyl group conjugated with the C=C bond. In these cases a reaction was also possible in the conjugate C=C-C=O system or in the C=C double bond according to Refs.4 and 5. The reaction of trialkyl phosphites with esters of acrylic and metacrylic acid was inhibited already at temperatures between 140° and 160°C in the presence of hydro-

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87530

Addition of Trialkyl Phosphites to Acrylic  
Systems

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B001/B064

quinone which prevents the polymerization of the acrylates. On hydrolysis, the main reaction products of triethyl and tributyl phosphite with methylacrylate (colorless, transparent oils) form the same tribasic organophosphoric acid which is identical with the acid described in publications (Refs.6-8). The infrared spectra of the esters synthesized indicate the presence of a carbonyl group. The spectroscopic data, the elementary analysis for C,H,P,OR (three alkoxy groups), the molecular weight, and the comparison of the constants of the products obtained with published data, clearly show that the compounds obtained are triethyl and tributyl esters of phosphone propionic acids  $(RO)_2P(O)CH_2CH_2COOR$  (Refs.9,7,12).

Triethyl ester of phosphone isobutyric acid  $(RO)_2P(O)CH_2CH(CH_3)COOR$  is formed in similar way by reacting triethyl phosphite with methylmethacrylate. In the reaction with acrylonitrile, the ester of the nitrile of phosphone propionic acid  $(RO)_2P(O)CH_2CH_2CN$  whose properties correspond to those described in publications (Refs.9,11) are formed. Thus it was proved that the phosphites containing acrylic systems mainly react with the C=C bond. It is assumed that the above reaction mechanism is a

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Addition of Trialkyl Phosphites to Acrylic Systems S/079/60/030/012/014/027  
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free radical mechanism. In the reaction between triethyl phosphite, and methyl acrylate also higher-boiling products are formed. They consist of two even three acrylate molecules which are added to one phosphite molecule, p-diethoxybenzene is formed at the same time. V. S. Abramov, G. Kamay, and V. A. Kukhtin are mentioned. Furthermore, the authors thank S. S. Dubov for the study of the infrared spectra. There are 26 references: 15 Soviet, 7 US, 3 British, and 1 German.

SUBMITTED: July 31, 1959

+

Card 3/3

GINZBURG, Valentin Abramovich; BERGAUZ, L.A., redaktor; PARTSEVSKIY, V.M.  
redaktor; BEKKE, O.G., tekhnicheskii redaktor

[Photographing working time in the mining industry; manual for  
standardizers and timekeepers] Fotografiiia rabocheho vremeni v  
gornorudnoi promyshlennosti; posobie dlia normirovshchikov i  
khronometrashistov. Moskva, Gos.nauchno-tekhn.isd-vo lit-ry po  
chernoi i tsvetnoi metallurgii, 1955. 174 p. (MLRA 9:1)  
(Time study)

ATAROV, M.S.; BERNSTEIN, A.S.; BUNIN, N.N.; VOL'NOV, I.I.; ~~CHERNYKH~~ CHERNYKH, V.A.;  
DANOVSKIY, N.F.; IVLEV, N.I.; KERZHENEVICH, Yu.B.; LITVIN-SEDOY,  
M.Z.; MAYZEL', B.N.; ROTENBERG, G.I.; TYAGUNOVA, Z.I., red.;  
PLAKSH, L.Yu.; tekhn. red.

[Concise Italian-Russian polytechnic dictionary] Kratkiy ital'iansko-  
russki politekhnicheskii slovar'. Moskva, Glav.red.inostr. nauchno-  
tekhn.slovarei Fizmatgiz, 1961. 378 p. (MIRA 14:12)  
(Italian language—Dictionaries—Russian)  
(Technology—Dictionaries)

YANUSOVICH, A.Ya.; KAZANOV, . . .; STISBUNG, V.A.; PRIVILENTSEV, N.F.;  
MERTENOV, L.L.

Pyrolysis and photolysis of polyfluoronitrosoalkanes, a  
reaction of nitroso compounds with nitrogen oxide.  
Dokl. AN SSSR 141 no.1:125-128 '61. (MIRA 14:11)

1. Predstavleno glavnyim i.l. Kuznetsem i N.I. Babachnikov.  
(Nitroso compounds)  
(Nitrogen oxide)

3  
GINZBURG, V., inzhener.

A vertical pump. Mast. ugl. 4 no. 10:19 0 '55. (MIRA 9:1)  
(Mine pumps)

GINZBURG, Y.B., inzh.; PIKOVSKIY, S.A., inzh.

~~Classification~~  
Protection, interlocking, and signaling used in automatically controlled hoisting units in Moscow Basin mines. Bezop. truda v prom. 2 no. 11:20-22 N '58. (MIRA 11:11)

1. Institut Giprogleavtomatisatsiya.  
(Moscow Basin--Mine hoisting--Safety appliances)

~~GINZBURG, V.B., inzh.; PIKOVSKIY, S.A.~~

Improving automatic hoisting systems having dumping cages. Bezop.  
truda v prom. 3 no.7:19-21 J1 '59. (MIRA 12:11)

1. Giprougleavtomatizatsiya.  
(Mine hoisting--Safety appliances)

PIKOVSKIY, S.A.; GLINZBURG, V.B.

Automatic hoisting unit with self-dumping cages. Biul.tekh.-  
ekon.inform. no.5:7-8 '59. (MIRA 12:8)  
(Coal mining machinery)

LOBOV, N.A., inzh.; PIKOVSKIY, S.A. , inzh.; GINZBURG, V.B., inzh.

Automatizing skip-hoisting equipment at the No.11 "Lipkovskaya"  
Mins. Ugol' 34 no.3:42-47 Mr '59. (MIRA 12:5)  
(Moscow Basin--Mine hoisting)  
(Automatic control)

GINZBURG, V.B.; ZARITSKIY, M.N.

Over-all automation of hydraulic coal mining. Biul.tekh.-ekon.  
inform. no.6:8-14 '61. (MIRA 14:6)  
(Hydraulic mining)  
(Automation)

GINZBURG, V.B., inzh.; FEL'DMAN, Ye.S.

Over-all automation in hydraulic mines. Mekh. i avtom.proizv. 15  
no.12:11-15 D '61. (MIRA 14:12)  
(Hydraulic mining) (Automation)

S/118/62/000/003/005/005  
D221/D302

AUTHOR: Ginzburg, V.B., Engineer

TITLE: The problems of reliability of automation equipment

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 3,  
1962, 44 - 45

TEXT: The majority of control instruments for automating the coal and mining industry are manufactured by 'Krasnyy metallist' at Kono-  
top, and the Dnepropetrovskiy zavod shakhtnoy avtomatiki (Dnepro-  
petrovsk Plant of Pit Automation), the trust of Luganskugleavtoma-  
tika and the Donetskij elektromekhanicheskiy zavod (Donetsk Elec-  
tromechanical Plant). They test the instruments in their shops, and  
their workers take part in industrial tests. However, there is no  
examination of reliability of the equipment. Furthermore, no method  
of testing these instruments is available, and therefore, the cata-  
logues do not indicate the guaranteed period of service. The author  
suggests attacking this problem, by basing it on statistical data;  
also, guaranteed service should be revealed in the specifications

Card 1/3

The problem of reliability of ...

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D221/D302

of the equipment. The testing of reliability takes precedence in the radio industry, where at least 10 specimens for each group of an instruments batch is examined. The mean period of trouble-free work is calculated from  $T_m = t_t/n$ , where  $t_t$  is the duration of instrument test in hours,  $n$  is the number of rejects which occurred in this interval. This test time should be about 10 times greater than the number of hours for one reject; The probability of reliable operation during a period  $P_o$  is computed from

$$P_o = e^{-(t_f/t_m)},$$

where  $t_f$  is the time during which the instruments must operate correctly. It is connected with reliability of its components, where


the probability of safe service is determined by  $P_e = e^{-(t_g/T_m)}$ , where  $t_g$  is the guaranteed service period of the element. The life of the instrument depends on the correct operation, timely preven-

Card 2/3

The problem of reliability of ...

S/118/62/000/003/005/005  
D221/D302

tive measures and on the planned replacement of its components. The instrument manufacturers should determine the life of their products by extensive tests which should be carried out in conditions close to the operational. The organizations dealing with automation should plot curves based on statistical data and thus obtain the index of reliability of the equipment involved.



GINZBURG, V.B., inzh.

Reliability of automatic control devices. Mekh.i avtom.proizv.  
16 no.3:44-45 Mr '62. (MIRA 15:4)  
(Automatic control)

MEL'KUMOV, I.G.; GINZBURG, V.B.

Standards and devices for conducting reliability tests of  
automatic control equipment used in coal mining. Prikl.  
tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh.  
inform. 17 no.3:15-18 '64. (MIRA 17.9)

GINZBURG, V.B., inzh.; MEL'KUMOV, L.G., inzh.; RABINOVICH, M.S., kand.  
tekh. nauk

Reliability of the speed control relay. Mekh. i avtom. proizv.  
18 no.1:39-40 Ja '64. (MIRA 17:8)

MEL'KUMOV, L.G., inzh.; GINZBURG, V.B., inzh.; ARONOVA, M.I., inzh.

Increasing the reliability of instruments for the automatic  
control of mine drainage. Gor. zhur. no.6:58-60 Je '64.

(MIRA 17:11)

1. Gosudarstvennyy institut po mekhanizatsii i avtomatizatsii  
shakht, ugleoboga'titel'nykh fabrik i otkrytykh razrabotok ugol'noy  
promyshlennosti, Moskva.

GINZBURG, V. G.

"X-Ray Diagnosis of Injuries to the "asal Bone." Vest. Oto-orino-laringol.,  
No 3, 1948.

Mbr. Otorhinolaryngological Clinic imeni Sverzhevskiy, 2nd Moscow  
Med. Inst. imeni I. V. Stalin, -c1948-.

USSR/Medicine - Tuberculosis  
Roentgenography

Sep/Oct 49

"Method of Roentgenography of the Lungs With a  
Greater Number of Hard Rays," V. G. Ginzburg, Dr  
Med Sci, Cen Sci Inst of Roentgenol and Radiol Invest  
Molotov, 1 2/3 pp

"Prob Tuber" No 5

Soft rays (50-60 kv) have generally been used in  
USSR for roentgenography of the lungs. Ginzburg  
recommends the increase of voltage for hard rays  
to 105 kv regardless of subject's age, sex, and  
thickness of thorax. Use of Bucky's diaphragm is

152765

USSR/Medicine - Tuberculosis (Contd)

Sep/Oct 49

obligatory. Little current passes through the  
X-ray tube. Normal exposures at focal distance  
of one meter are 0.2-0.3 sec. Longer exposures  
are required for better detail of extensive process  
in the lungs. Dir, Cen Sci Inst of Roentgenol and  
Radiol: Prof S. A. Reyberg, Hon Worker in Sci.

152765

GINZBURG, V. G.

GINZBURG, V.G.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130006-0  
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R000515130006-0

GINZBURG, V.G.; KHARLAMOV, M.D.

Optic centrator for roentgen tubes. Vest. otorinolar. 13 no.1;  
75-76 Jan-Feb 51. (GIML 20:5)

1. Doctor Medical Sciences V.G. Ginsburg and Engineer M.D. Kharlamov. 2. Of the Clinic for Diseases of the Ear, Throat, and Nose (Director--Prof.A.G.Likhachev), First Moscow Order of Lenin Medical Institute.

GINZBURG, V. G.; VOL'FKOVICH, M. I.

Roentgenologic diagnosis and clinical aspects of cysts  
originating in the maxillary mucous membrane. Vest.  
otorinolar., Moskva 13 no.5:54-59 Sept-Oct 1951. (CLML 21:1)

1. Doctor Medical Sciences V. G. Ginzburg and Prof. M. I.  
Vol'fkovich. 2. Of the Clinic for the Diseases of the Ear,  
Throat, and Nose (Director — Prof. A. G. Likhachev),  
First Moscow Order of Lenin Medical Institute and of the  
Roentgenodiagnostic Department (Head — Prof. I. A.  
Shekhter), Central Scientific-Research Institute of  
Roentgenology and Radiology of the Ministry of Public  
Health RSFSR.

USSR/Medicine - Roentgenology

Card 1/1

Author : Ginzburg, V. G. (reviewer)

Title : Review of "Rentgenodiagnostika zabolevaniy slyunnykh zhelez (sialografiya)"  
(X-ray diagnosis of disease conditions of the salivary glands), by G. A.  
Zedgenidze

Periodical : Vest Rentgen i Radiol 1, 86-87, 1954

Abstract : The book deals with the X-ray diagnosis of the various disease conditions  
of the salivary glands and their ducts by means of introducing various  
contrasting substances to the salivary glands (sialography). The book,  
published in Leningrad, 1953, received a favorable review.

**GINZBURG, V.G., doktor meditsinskikh nauk; KOLYCHEV, M.A., inzhener.**

Various types of negatoscopes with fluorescent lights. Vest. rent 1 rad.  
no.6:80-82 N-D '55 (MIRA 9:4)

1. Iz gosudarstvennogo nauchno-issledovatel'skogo instituta rent-  
genologii i radiologii imeni V.M. Molotova (dir.-dotsent I.G.  
Lagunova)

(ROENTGENOGRAPHY, apparl and instruments  
negatoscope, various constructions with luminescent lamps)

GINSBURG, V.G., doktor meditsinskikh nauk; DMOKHOVSKIY, V.V., kandidat  
tekhnicheskikh nauk

Tomography in oblique projection [with summary in English]. Vest.  
rent. i rad. 32 no.1:50-52 Ja-F '57. (MIRA 10:6)

1. Iz rentgenodiagnosticheskogo otdeleniya (sav. - prof. I.A.  
Shekhter) i laboratorii apparatov i trubok (sav. - kandidat  
tekhnicheskikh nauk V.V.Dmokhovskiy) Gosudarstvennogo nauchno-  
issledovatel'skogo instituta rentgenologii i radiologii imeni  
V.M.Molotova (dir. I.O.Lagunova)

(ROENTGENOGRAPHY

tomography in oblique projection)

GINZBURG, V.G., prof.

Radiographic diagnosis of foreign bodies in the skull following  
wounds of the maxillofacial region. Trudy TSentr. nauch.-issl.  
inst. rentg. i rad. 10:118-130 '59. (MIRA 12:9)  
(SKULL--RADIOGRAPHY) (FOREIGN BODIES)

GINZBURG, V.G., prof.; ROSTOVSEVA, T.F.

Method of tomography of the temporal bone. Vest. otorin. 22  
no. 5:39-43 8-0 '60. (MIRA 13:11)

1. Iz rentgenodiagnosticheskogo otdela (sav. - prof. I.A. Shekhter)  
Gosudarstvennogo nauchno-issledovatel'skogo rentgenoradiologicheskogo  
instituta Ministerstva zdravookhraneniya RSFSR, Moskva.  
(TEMPORAL BONE—RADIOGRAPHY)

GINZBURG, V.G., prof.

"Das Röntgenschichtbild des Ohres" by K. Mündnich, K.W. Frey.  
Reviewed by V.G. Ginzburg. Vest. rent. 1 rad. 36 no. 2:78-79

Mr-Ap '61.

(MIRA 14:4)

(EAR—RADIOGRAPHY) (MÜNDNICH, K.) (Frey, K.W.)

GINZBURG, Vladimir Gertsavich, prof.; BENTSIAKOVA, V.M., red.; KUZ'MINA,  
N.S., tekhn. red.

[Fundamentals of a roentgenological examination of the skull]  
Osnovy rentgenologicheskogo issledovaniia cherepa; rukovodstvo  
dlia vrachei. Moskva, Medgis, 1962. 178 p. (MIRA 16:4)  
(SKULL—RADIOGRAPHY)

... V. M. Dobrochetov and V. I. ... U.R.S.S., 1944, pp. 262-267) ... part of *Permethrin* ... it was possible, that the time required ... and that the so. of ... W. H. N.

GINZBURG

APPROVED FOR RELEASE: Thursday, September 26, 2002

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APPROVED FOR RELEASE: Thursday, September 26, 2002

for (Lemes, 7)

3448

On the Short-Circuiting of a Charged Transmission Line. V. I. Ginzburg (Inst. Acad. Sci. U.S.S.R., JETI, Leningrad; No. 1 pp. 5-14; in Russian). A transmission line with uniformly distributed circuit parameters is considered. Initially it is open-circuited and charged. A general equation is derived for the self-oscillations in the line when short-circuited through a loading inductor, and solutions are found for two particular values of this inductance.

Mintsburg, V. I.

Lead Chem Sci

Dissertation: "Mechanism of the Photoelectrochemical process on Au-coated  
Polarized platinum and Lead Electrodes."

24 October 42

Sci Res Order of the Labor and Gender Assigned Effect Unit 1. Y.-L. L. L. L.

**SO Vecheryaya Moskva**  
**Sum 71**

**Photoelectrochemical process and mechanism of liberation of oxygen at a platinum electrode.** V. I. Ginzburg and V. I. Vaselovski (Karpov Inst. Phys. Chem., Moscow). *Zhur. Fiz. Khim.* 26, 806-78(1960); cf. C.A. 44, 6296.—The potential  $V$  of a Pt electrode in  $NH_4SO_4$  after several anodic and cathodic polarizations was 0.90 v. referred to  $NH_4$  electrode. If this Pt electrode was anodically polarized to  $V_1$  v., it became photosensitive, and the light gradually lowered  $V$  back to 0.9 v. The rate of decrease of  $V$  was greater the greater  $V_1$  (1.15–1.35 v.) and the greater the light intensity  $I$ . The photoelectrochem. c.d.  $i$  was proportional to  $I$ , and the shift of  $V$  was a linear function of  $\log I$ . The light longer than 400  $m\mu$  was inactive, and the activity increased with frequency up to 254  $m\mu$  (the shortest wave used); at 254  $m\mu$  the quantum yield of the photoelectrons was 0.3% for the incident light. At a const.  $I$ ,  $i$  increased with  $V_1$  almost linearly as long as  $V_1$  was small. The electrode capacity was approx. 380 microfarads/sq. cm. for both dark and light processes. When a Pt electrode was anodically polarized to  $V_1$  more than 1.5 v. and its surface was then reduced cathodically, the  $V$  was for a time const. at 1.5 v. and about 0.012 coulombs/sq. cm. were required to lower the  $V$ , showing that the Pt surface was covered with a monolayer of a higher oxide. Irradiation and cathodic polarization caused decompos. of this oxide more rapidly than either of them alone. The increase of O overvoltage on Pt with increasing c.d. showed a kink at 1.4 v. The mechanism of the photoelectrochem. effect includes liberation of an electron in Pt oxide by light, migration of this electron into the metal, and of the "electron deficiency" toward the soln., and discharge of neg. O forming a part of the higher oxide. J. J. Hiskerman

Electrodes

Mechanism of action of optical radiation on an anodically oxidized lead electrode.  
Zhur. fiz. khim. 26, No. 1, 1952.

Monthly List of Russian Acquisitions, Library of Congress, Sept, 1952. UNCLASSIFIED

GINZBURG, V.I.

~~Electrochemical investigation of the behavior of aluminium bronze~~  
towards corrosion in sulfuric acid [with English summary in insert]  
Zhur.fiz.khim. 30 no.9:1932-1940 S '56. (MIRA 9'12)

1. Institut sinteticheskikh spirtov i organicheskikh produktov,  
Moskva.

(Aluminum bronze--Corrosion)

64-1-8/19

AUTHOR: Ginzburg, V. I.

TITLE: The Corrosion Behavior of Chrome-Nickel Steel in Concentrated Sulfuric Acid Solutions  
(Korroziionnoye povedeniye khromonikelevykh staley v kontsentrirrovannykh rastvorakh sernoy kisloty)

PERIODICAL: Khimicheskaya Promyshlennost', 1958, Nr 1, pp. 37-42 (USSR).

ABSTRACT: It was necessary to carry out the investigations mentioned in the title a short time after the opening of the below mentioned plant since considerable point corrosion phenomena have been observed on various steel types and as the explanations in publications are inadequate. 6 different kinds of investigations were carried out expediently, i. e. at so-called: 1) "weakly oxidizing", 2) "at oxidizing with agitation", 3) "weakly oxidizing with agitation", 4) "to a great extent reducing" conditions 5) with a specially developed device, and 6) investigations as to the point corrosion of the differently treated samples with a metallurgical microscope, artificial corrosion formation by dropping a drop of iron perchloride on the steel samples resp. The device of the 6th method of investigation is based on a proposal

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③  
The Corrosion Behavior of Chrome-Nickel Steel in  
Concentrated Sulfuric Acid Solutions

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by A. P. Akol'zin (reference 9) and makes possible investigations where a gas current keeps the sulfuric acid in motion and scavenges the entire plant, resp. The experiments mentioned were carried out with sulfuric acid of 85-98,3% and at 85-100°C. Among other facts the following was observed: In a "weakly oxidizing" medium, at a concentration of 85,90% of sulfuric acid a carbonaceous steel is to a greater extent subjected to the corrosion than a chrome-nickel steel, whereas an increase of concentration reduces the corrosion and a temperature rise increases the corrosion. Similar results were obtained in the "oxidizing medium with agitation", whereby a somewhat lower mean corrosion velocity for chrome-nickel steels was observed. At "to a great extent reducing" conditions an extremely high corrosion of chrome-nickel steels in sulfuric acid of 85% at 85°C was observed, whereas it was comparatively low in sulfuric acid of 97%. The experiments with two steel samples in the specially developed equipment showed that the point corrosion is increased by an increased agitation of sulfuric acid, and that in the case of blowing gaseous ethylene through the plant and through the solution of sulfuric acid of 85% the corrosion of the sample within the solution increases to a great extent. The experimental results of the dropping of a solution of iron perchloride of 30%

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The Corrosion Behavior of Chrome-Nickel Steel in  
Concentrated Sulfuric Acid Solutions

64-1-8/19

on the steel samples showed the increased tendency towards point corrosion of one of the chrome-nickel steels. Summarizing, it can be said that a concentration increase of sulfuric acid causes in all steel types (in particular in the case of an increase of concentration from 95 to 97<sup>0</sup>/o) a reduction of corrosion; the influence of the temperature rise depends on the composition of the steel; on certain conditions, an addition of molybdenum to the steel can support the corrosion, that is to say, that the assumption is wrong; that molybdenum-alloyed steels are always more corrosion-proof, previous to the occurrence of the point corrosion a so-called "hill corrosion" takes place, as was detected microscopically. This could be observed especially well in the case of a preliminary treatment of the investigation sample in a chlorine containing atmosphere. There are 9 figures, 2 tables, and 14 references, 4 of which are Slavic.

ASSOCIATION: Scientific Research Institute for Synthetic Alcohol and Organic Products (Nauchno-issledovatel'skiy institut sinteticheskogo spirta i organicheskikh produktov)

Card 3/4

The Corrosion Behavior of Chroma-Mickel Steel  
in Concentrated Sulfuric Acid Solutions

64-1-~~8~~19

AVAILABLE. Library of Congress

1. Chromium-nickel steel-Corrosion-Test methods
2. Sulfuric acids-Corrosive effects

SOV/75-14-3-14/29

5(3)

AUTHORS: Ginzburg, V. I., Frishman, T. A.

TITLE: Polarographic Determination of Small Amounts of Phenol on a Rotating Platinum Anode (Polyarograficheskoye opredeleniye nebol'shikh kolichestv fenola na vrashchayushchemsya platinovom anode)

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 3, pp 336-342 (USSR)

ABSTRACT: As platinum electrode a platinum wire with a diameter of 0.5 to 1.5 mm and a length of 10 to 12 mm was used. The platinum wire was fastened on the shaft of an electromotor and supplied with current by means of a line conducted through the shaft. The "poisoning" of the electrode (Fig 1) described in a previous paper (Ref 11) could be eliminated by two ways: a) Preliminary treatment with concentrated nitric acid and - after washing off - three-stage anodic polarization in the background solution, b) (simpler) after treatment with nitric acid 5-6 sec annealing in the oxidation flame of a gas burner (up to red heat). Figures 2 and 3 show the polarograms taken by means of a galvanometer, figure 4 a diagram recorded by the electron polarograph. Table 1 and figure 6 present the results of a series of tests, which indicate the reproducibility and the

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SOV/75-14-3-14/29

**Polarographic Determination of Small Amounts of Phenol on a Rotating Platinum Anode**

precision of the method suggested. On the basis of the calibration curve figure 6 the root mean square deviation was found to be 2.5 - 4.7%. The method is applicable to the direct determination of phenol (up to  $1.0 \cdot 10^{-5}$  mole) in colored turbid medium which is contaminated by other organic compounds such as  $\alpha$ -methyl styrene, acetophenone, acetone etc. There are 6 figures, 2 tables, and 11 references, 6 of which are Soviet.

**ASSOCIATION:** Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov, Moskva (Scientific Research Institute of Synthetic Alcohols and Organic Products, Moscow)

**SUBMITTED:** January 8, 1958

Card 1/2

The Volt-Amperometric Determination of Phenol in  
Isopropyl Benzene at a Rotating Platinum Electrode

SOV/32-24-8-12/43

of phenol in isopropyl benzene for the concentration range  $10^{-5}$  to  $10^{-4}$  mole are also given. A maximum deviation of 7,4% and a standard deviation of 4,17% were observed. Less phenol was found than was actually present, and this was probably caused by incomplete extraction. The relatively low standard deviation indicates that the method meets the requirements for an analytical determination of such small amounts of phenol in isopropyl benzene. This method was successfully used in the Dzerzhinsk Works (Dzerzhinskiy zavod). There are 1 table and 2 references, 1 of which is Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut sinteticheskikh spirtov  
i organicheskikh produktov (The Scientific Research Institute  
for Synthetic Alcohols and Organic Products)

Card 2/2

18(7)

SOV/32-25-2-46/78

AUTHOR:

Ginzburg, V. I.

TITLE:

A Unit for the Study of the Corrosion Properties of Materials in Highly "Aggressive" Media at Higher Temperatures (Ustanovka dlya izucheniya korrozionnogo povedeniya materialov v sil'no agressivnykh sredakh pri povyshennykh temperaturakh)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 2, pp 220 - 222 (USSR)

ABSTRACT:

Studies under technological conditions have been made possible by the construction of a laboratory unit of molybdenum glass. In this unit metallic and non-metallic materials are kept in contact with highly "aggressive" gases or liquids at a high temperature. The testing of chrome-nickel steels in concentrated (85-98%)  $H_2SO_4$  saturated with different gases ( $O_2, N_2, C_2H_2$ ) up to a temperature of  $100^{\circ}$  was successful. Of special interest were the studies of the pitting corrosion of chrome-nickel steels under conditions corresponding to actual operating conditions, dependent on the amount and velocity of the gas flowing through the unit, the intensity of

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A Unit for the Study of the Corrosion Properties of                      SOV/32-25-2-46/78  
Materials in Highly "Aggressive" Media at Higher Temperatures

the mixture of the aggressive liquid, the temperature of the solution, etc. The unit (Fig 1) contains a vessel for the examination of the corrosion (Fig 2) which was designed on the basis of the work done by P. A. Akol'zin and V. V. Glushchenko (Ref 1). The circulation of the gas through the corrosion liquid is effected by a glass circulation pump, while the liquid itself is kept flowing by a compressed-air lift pump. In addition, the gas bubbles result in a violent agitation of the corrosion liquid. There are 2 figures and 1 Soviet reference.

ASSOCIATION:    Institut sinteticheskikh spirtov i organicheskikh produktov  
                  (Institute of Synthetic Alcohols and Organic Products)

5 (4)

AUTHOR:

Ginzburg, V. I.

SOV/76-33-7-10/40

TITLE:

Phenol Oxidation on a Rotating Platinum Anode

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 7, pp 1504 - 1515  
(USSR)

ABSTRACT:

T. A. Frishman and A. I. Yermakov assisted in the experimental part of the present paper. The investigation dealt with phenol oxidation on a rotating Pt anode since this problem is important not only for this case but also for the development of convenient methods of polarographic analysis for other organic substances oxidizing on solid anodes. The current-potential curves were plotted by a method described already earlier (Ref 7). Measurements were carried out by means of automatic polarographs of the system Heyrovsky of the types V-301 and M-1026 as well as by means of an electron polarograph with a disk diagram. The latter was specially designed by V. I. Ginzburg and L. S. Klyayshteyn. Preliminary experiments indicated that for a quantitative analysis the electrode (E) is to be pretreated and prevented from being "poisoned" during measurement. This problem was experimentally solved in two variations -

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# Phenol Oxidation on a Rotating Platinum Anode

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(1) by preliminary anodic treatment and (2) by an annealing of the (E). Speeds of rotation of the (E) of more than 1,200 rpm were found to be an optimum. Among other things, it was found that the method of determination is more sensitive by 4 - 8 times on a rotating (E) than on a resting one (Table). Observations concerning the "poisoning" of the (E) indicate that the complex anodic reaction of phenol oxidation includes also secondary delays and irreversible stages due to polymerization and adsorption of the oxidation products on the (E). Thus, it is possible that the limitations of diffusion vanish partly or completely. Experimental data shows that the quantity of the limiting current depends not only on the phenol concentration and the diffusion conditions (speed of rotation of the (E); temperature, etc.) but also on the polarization rate and the state of the electrode surface. The author suggests a reaction mechanism for the conditions under investigation as well as a new method permitting quantitative polarographic determination of small phenol quantities in aqueous solutions (more than  $1.0 \cdot 10^{-5}$  mols of phenol). There are 10 figures, 1 table, and 15 references, 8 of which are Soviet.

Phenol Oxidation on a Rotating Platinum Anode

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ASSOCIATION: Nauchno-issledovatel'skiy institut sinteticheskikh smol Moskva  
(Scientific Research Institute for Synthetic Resins, Moscow)

SUBMITTED: December 14, 1957

GINZBURG, V.I.

Determination of small amounts of thiourea in copper electrolytes  
on a rotating platinum anode. Zhur.anal.khim. 15 no.3:  
355-358 My-Je '60. (MIRA 13:7)  
(Urea) (Electrodes, Platinum)

GINZBURG, V.I.; FLEGONTOVA, L.M.

Amperometric determination of the total content of phenol groups  
in epoxide resins. Zav. lab. 27 no. 4:392-394 '61. (MIRA 14:4)  
(Phenols) (Epoxy resins)

GINZBURG, V.I.

Amperometric determination of organic substances and of hexavalent chromium in chromate solutions. Zav.lab. 27 no.11:1337-1339 '61.  
(MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut poligraficheskoy promyshlennosti.

(Conductometric analysis)      (Chromium--Analysis)

GINZBURG, V.I.; VIGER, G.I.

Amperometric determination of small quantities of thiourea and  
its use for the amperometric determination of silver. Zhur, anal.-  
khim. 17 no.5:631-635 Ag '62. (MIRA 16:3)

1. All-Union Scientific Research Institute of Printing Industry,  
Moscow.  
(Urea) (Silver--Analysis) (Conductometric analysis)